

## ABSTRACT

This invention relates to a novel polypeptide having an  $\alpha$  1,3-fucosyltransferase activity, a method for producing the polypeptide, a DNA encoding the polypeptide, a method for producing the DNA, a recombinant vector obtained by inserting the DNA therein, a transformant having the recombinant vector, an antibody recognizing the polypeptide, a method for determining or immunostaining the polypeptide of the present invention using the antibody, a method for producing a fucose-containing sugar chain using the polypeptide or the transformant, a method for screening a substance that changes the expression of a gene encoding the polypeptide, a method for screening a substance that changes the activity of the polypeptide, and a method for diagnosing diseases such as encephalopathy, renal diseases and cancers.